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Leuthold

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(54) **OFFSET REDUCTION FOR DISPLACEMENT SENSOR**

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G11B 5/596	(2006.01)

(52) **U.S. Cl.**

CPC ***G01B 7/023*** (2013.01); ***G11B 5/5582*** (2013.01); ***G11B 5/59627*** (2013.01); ***G11B 5/59694*** (2013.01)

(58) **Field of Classification Search**

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See application file for complete search history.

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(57) **ABSTRACT**

A device including a displacement measurement circuitry and a charge adjuster circuitry is disclosed. The displacement measurement circuitry may be configured to measure displacement associated with a rotating object. The charge adjuster circuitry is coupled to the displacement measurement circuitry. The charge adjuster circuitry is configured to measure an offset associated with ambient noise in the device over time. The charge adjuster circuitry is further configured to adjust sensors of the displacement measurement circuitry to reduce the measured offset.

19 Claims, 16 Drawing Sheets